What is claimed is:

1. A system for calibrating light output by a light-emitting diode (LED), the system comprising:

a support to which an LED to be calibrated may be positioned thereon;

a photosensor adjacent to the support for obtaining an output measurement generated by the LED;

a processor in communication with the photosensor and the LED, the processor configured to formulate a calibration value from an adjustment of the output measurement against a reference value, such that during a subsequent generation of light output, the calibration value permits the subsequent light output to approximate an output accorded to the reference value; and

a memory mechanism in association with the LED, and on which the resulting value from the calibration may be stored.

2. A system as set forth in claim 1, wherein the support is can accommodate a fixture having multiple LEDs thereon.

3. A system as set forth in claim 1, further including an enclosed member configured to encompass the support, the memory mechanism, and the photosensor, so as to block ambient light from therebetween and permit only measurement of the output from the LED.

4. A system as set forth in claim 3, wherein communication between the processor and either of the LED or the photosensor can be implemented by one of a cable, wire, network, or a combination thereof.

5. A system as set forth in claim 3, wherein communication between the processor and either of the LED or the photosensor is by wireless means.

6. A system as set forth in claim 5, wherein the wireless means includes one of radio frequency (RF), infrared (IR), microwave, electromagnetic transmission, acoustic, Bluetooth, home RF or other wireless means.

7. A calibration device comprising:

a support to which an LED to be calibrated may be positioned thereon;

a photosensor adjacent to the support for obtaining an output measurement from the light output generated by the LED; and

a communication mechanism through which an output measurement from the photosensor is communicated to a processor, which processor formulates a calibration value from an adjustment of the output measurement against a reference value, and through which the calibration value from the processor is communicated to the LED;

wherein the LED includes a memory mechanism on which the calibration value communicated from the processor may be stored.

8. A device as set forth in claim 7, wherein communication between the communication mechanism and the processor can be implemented by one of a cable, wire, network, or a combination thereof.

9. A device as set forth in claim 7, wherein the communication mechanism includes a transmitter and a receiver.

10. A device as set forth in claim 9, wherein communication between the processor and either of the transmitter and receiver is by wireless means.

11. A device as set forth in claim 10, wherein the wireless means includes one of radio frequency (RF), infrared (IR), microwave, electromagnetic transmission, acoustic, Bluetooth, home RF, or other wireless means.

12. A device as set forth in claim 7, further including a display on which parameters regarding light output from the LED may be provided to inform a user of status of the light output.

13. A device as set forth in claim 7, further including an interface to permit a user to vary light output parameters.

14. A device as set forth in claim 7, further including a second memory mechanism for storing the output measurement from the photosensor, which output measurement can subsequently be communicated to the processor.

15. A device as set forth in claim 7, further including a processor for formulating a calibration value from an adjustment of the output measurement against the reference value, such that during a subsequent generation of light output, the calibration value permits the subsequent light output to approximate an output accorded to the reference value.

16. A calibration device comprising:

a housing;

an activation unit for inducing light output from an LED to be calibrated;

a photosensor at one end of the housing for obtaining an output measurement from the light output generated by the LED; and

a communication mechanism in the housing through which output measurement from the photosensor is communicated to a processor, which processor formulates a calibration value from an adjustment of the output measurement against a reference value, and through which the calibration value from the processor can be received by the device and subsequently communicated to the LED.

17. A device as set forth in claim 16, wherein communication between the communication mechanism and either of the processor and LED can be implemented by one of a cable, wire, network, or a combination thereof.

18. A device as set forth in claim 16, wherein the communication mechanism includes a transmitter and a receiver.

19. A device as set forth in claim 18, wherein communication between the processor and either of the transmitter and receiver is by wireless means.

20. A device as set forth in claim 19, wherein the wireless means includes one of radio frequency (RF), infrared (IR), microwave, electromagnetic transmission, acoustic, Bluetooth, home RF, or other wireless means.

21. A device as set forth in claim 16, further including, on the housing, a display on which parameters regarding light output from the LED may be provided to inform a user of status of the light output.

22. A device as set forth in claim 16, further including, on the housing, an interface to permit a user to vary light output parameters.

23. A device as set forth in claim 16, further including a memory mechanism for storing the output measurement from the photosensor, which output measurement can subsequently be communicated to the processor.

24. A device as set forth in claim 16, further including a processor for formulating a calibration value from an adjustment of the output measurement against the reference value, such that during a subsequent generation of light output, the calibration value permits the subsequent light output to approximate an output accorded to the reference value.

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25. An illumination device comprising:

a housing;

an LED illumination source positioned within the housing;

a photosensor adjacent to the illumination source for obtaining an output measurement generated by the LED;

a processor within the housing and in communication with the photosensor for calibrating the output measurement received from the photosensor against a reference value, and with the LED for transmitting thereto a resulting calibration value from the processor; and

a memory mechanism coupled to the LED illumination source and on which the resulting calibration value from the processor may be stored.

26. A device as set forth in claim 25, further including a display on which parameters regarding light output from the LED may be provided to inform a user of status of the light output.

27. A device as set forth in claim 25, further including an interface to permit a user to vary light output parameters.

28. A device as set forth in claim 25, further including a calibration activation mechanism to initiate calibration of the device.

29. A device as set forth in claim 25, wherein the LED illumination source includes a plurality of LEDs.

30. A method for calibrating light output by a light-emitting diode (LED), the method comprising:

a) generating light output from the LED;

b) obtaining an output measurement for the light output generated by the LED;

c) comparing the output measurement to a reference value;

d) formulating a calibration value from an adjustment of the output measurement against the reference value, such that during a subsequent generation of light output, the calibration value permits the subsequent light output to approximate an output accorded to the reference value.

31. A method as set forth in claim 30, further including storing the calibration value, such that upon the subsequent generation of light output, the stored calibration value may be accessed to permit the subsequent light output to approximate an output accorded to the reference value.

32. A method as set forth in claim 30, wherein the step of generating includes permitting the LED to emit light in an environment where there is an absence of ambient light.

33. A method as set forth in claim 30, wherein the step of comparing includes assigning a relative value to the output measurement, such that the relative value may be used in adjusting the output measurement.

34. A method as set forth in claim 30, wherein the step of formulating includes scaling the light output, such that the relative value approximates the reference value to permit generation of uniform light output by the LED.

35. A method as set forth in claim 30, wherein the step of formulating permits adjustment of intensity output by the LED.

36. A method as set forth in claim 30, wherein the step of formulating permits adjustment of color output by the LED.

37. A method as set forth in claim 36, wherein the calibration of color output by the LED can be used to provide a desired overall hue or whiteness in a multiple LED environment.